A 12 month study of post menopausal women was conducted to gauge the effect of shallow water based exercise on bone mineral density and physical function. An exercise group of 27 women performed 3 per week, 45 minute aquafit session for 12 months while the control group maintained their initial activity or non- activity whichever was the case. The results provide preliminary evidence that water exercise works. It helped maintain femoral neck BMD (Bone Mass Density) in postmenopausal women. Furthermore, water exercise proved an effective means of improving physical function as women age.

The study measured a number of factors. While the initial intent of the study was bone density at the spine, total hip, and femoral neck, the researchers also measured physical function such as leg power, arm endurance, cardio-respiratory fitness, and flexibility at beginning and at 12 months.

The results showed exercise benefits bone density at the femoral neck, but at the spine and pelvis no statistical differences were found. When it came to physical function, moreover, the exercises showed substantial improvement in all the areas measured.

Statistical sample t-tests revealed that over the 12 months, femoral neck BMD decreased 1.7% in the control group that did no exercise but did not change in exercisers. In other words, exercise helps people maintain bone density. When it came to physical function, exercisers exhibited greater cardio-respiratory fitness after 12 months of water exercise than did the control group. As well, the statistical sample tests revealed that exercisers increased leg power 14.1%, flexibility increased 11.4%, and mobility 13.4% to 17.4%, while values for controls did not change.

Water works.

The title and authors of the original study are:

 BONE DENSITY AND PHYSICAL FUNCTION IN POSTMENOPAUSAL WOMEN AFTER A 12-MONTH WATER EXERCISE INTERVENTION

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